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UNITED STATES DEPARTMENT OF AGRICULTURE
SYLLABUS 32

Contribution from the States Relations Service
A. C. TRUE, Director

In Cooperation with the Bureau of Plant Industry
W. A. TAYLOR, Chief



Washington, D. C.



April 3, 1918

ILLUSTRATED LECTURE
ON GROWING AND HANDLING
IRISH POTATOES

By

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CONTENTS

	Page		Page
Introduction	1	Potatoes for Seed	5
The Potato as a Truck Crop	1	Planting	8
The Potato as a General Farm Crop	2	Cultivation	8
Soil Requirements	3	Spraying	9
Preparation of the Soil for Planting	3	Harvesting the Crop	10
Fertilizers	3	Appendix	13
Variety to Plant	5		



WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

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STATES RELATIONS SERVICE.

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SYLLABUS 32—ILLUSTRATED LECTURE ON GROWING AND HANDLING IRISH POTATOES.¹

By WILLIAM STUART, *Horticulturist, Office of Horticultural and Pomological Investigations, Bureau of Plant Industry*, and H. B. HENDRICK, *Specialist in Agricultural Education, States Relations Service.*

INTRODUCTION.

The Irish potato is of American origin. Taken the world over, it is probably eaten by a greater proportion of the earth's inhabitants than any crop except wheat and rice. It is at present distributed over the entire area of North America occupied by civilized peoples.

The Irish potato is of great economic importance, principally as human food. Its lack of pronounced flavor, causing it to harmonize with foods having a more positive taste, is doubtless the principal reason why the potato has become such a favorite vegetable. Varieties have been developed which adapt it to a great range of climatic conditions. It is grown extensively as an early truck crop in the South, and even more extensively as a field crop in the northern part of the United States. In southern sections the same land can often be made to produce two crops in a single season, in which case it may be a very important and profitable industry.

THE POTATO AS A TRUCK CROP.

The growing of Irish potatoes as a truck crop in the South has become a leading industry. Thousands of acres are annually planted to early varieties and harvested as soon as they have reached suitable size, regardless of their maturity. These

¹ This syllabus has been prepared by cooperation between the Division of Horticultural and Pomological Investigations, Bureau of Plant Industry, as regards subject matter, and J. M. Stedman, Farmers' Institute Specialist, States Relations Service, as regards pedagogical form. It is designed to aid farmers' institute and other extension lecturers in presenting this subject before popular audiences. The syllabus is illustrated with 42 lantern slides. The numbers in the margins of the pages refer to the lantern slides as listed in the Appendix.

View.

3 are immediately transported to northern cities for distribution and consumption. This great industry in the South centers about some of the principal shipping centers of the States of Florida, Georgia, South Carolina, North Carolina, Virginia, Maryland, and New Jersey. They are shipped from these States in the order named to the northern markets. Isolated regions along the Gulf coast and in northern Texas, Oklahoma, Kentucky, and Missouri also grow and ship early potatoes with profit.

Southern growers of early potatoes for shipment should determine their planting, not by their previous year's experience, but by the condition of the crop at the North. The crop of so-called winter potatoes produced at the North has more influence upon the price which will be received for the early crop than any other single factor. The quantity, quality, and price of the northern crop on hand when the new crop reaches the market are factors which decidedly influence the price of the early potatoes. A market which is well stocked with old potatoes which have been kept in fairly good condition means a low price for the early crop when it comes on the market. As this new crop can not be retained in the soil at the extreme South without rapid deterioration, it is of special importance that the quantity of old potatoes in sight at planting season, as compared with the normal supply, shall be determined before planting.

THE POTATO AS A GENERAL FARM CROP.

4 The leading States of the country where the Irish potato is an important crop in general farming are the two northern tiers east of the one hundredth meridian. Besides this region there are several States growing large quantities of potatoes, but not at all comparable with the district mentioned. In addition, there are in the Western States restricted localities in irrigated sections where the potato crop has become a specialized industry. In most of the States along the Atlantic coast the potato is grown as a truck crop rather than as a crop in general farming.

THE POTATO IN THE CROPPING SYSTEM.

5 As a rule it is not advisable to grow potatoes oftener than once in three years on the same land. The favorite rotation of this crop in general farming is: First year, potatoes; second year, oats or spring wheat, seeded to clover and other grasses; third year, hay, the second growth to be plowed under in the fall and planted with potatoes the fourth season. Some

growers like hay fields to stand a second year before plowing, but rarely longer than that, for the land is in too much demand for potatoes to continue in grass more than two years.

Where the seasons are long and a cover crop can be sown after harvesting the potatoes, a shorter rotation may be practiced, provided the soil does not become infected with diseases.

In sections where alfalfa is grown, potatoes may be followed by potatoes the second year, then by grain and alfalfa for four or five years. In all cases the kind of crop to be grown in the rotation and the length of the rotation system adopted is largely governed by geographical location.

SOIL REQUIREMENTS.

Any soil, except light sand or stiff clay, if reasonably well supplied with moisture, will grow good potatoes. A gravelly or sandy loam, however, is the best soil for this crop. Light, rather dry, warm soils are nearest to the ideal for early potatoes as such soils stimulate rapid growth and quick maturity.

PREPARATION OF THE SOIL FOR PLANTING.

A deep and mellow seed bed is best for potatoes. To secure this deep plowing and thorough harrowing are necessary. Clover or pasture sod should be turned under 8 inches or more, in the fall. If seriously packed in the spring, the land should be replowed. The disk and cutaway harrows should be used to thoroughly pulverize the soil after which the smoothing harrow should be used to secure a fine surface. Some form of pulverizer or clod crusher is at times necessary where clods have formed. When grown as a truck crop it may be practical to precede potatoes with a hoed crop, preferably a legume. In this case, all débris and rubbish should be cleared during the fall or winter and the ground should be deeply and thoroughly plowed during late winter or early spring.

6

FERTILIZERS.

Fertilizers may be either natural or artificial. Natural fertilizers include farmyard manures and green-crop manures. Artificial, or commercial fertilizers, may be of mineral origin, such as acid phosphate (dissolved rock), nitrate of soda, sulphate of ammonia, and various forms of potash; or of organic origin, such as bone meal, dried blood, tankage, and cotton-seed meal. A complete fertilizer is one which contains nitrogen, phosphoric acid, and potash.

View.

- 7** On good clover, alfalfa, or old pasture sod fair crops of potatoes may be grown without artificial fertilizer, although in most cases fertilizers can be used with profit. On irrigated farms in potato-growing sections of the West legumes, principally alfalfa or clover are used as foundation crops preceding the potato crop. In the two northern tiers of States east of the one hundredth meridian, where potatoes are largely grown as a farm crop, comparatively little artificial fertilizer is used, except possibly in a few limited areas. In these States, however, considerable farmyard manure is used during the rotation, and clover and timothy sod is frequently turned under to enrich the soil.
- 8** When farmyard manure is used it should be applied at the rate of from 10 to 20 two-horse loads per acre, preferably spread in the fall. If used in the spring, it should be well rotted. Farmyard manure favors the development of potato scab, and should not be used on land infected with or subject to this disease.
- Artificial, or commercial, fertilizers are extensively used in the production of truck-crop potatoes, particularly on the Atlantic seaboard. If they are supplemented at all, it is by growing a crop of green manure upon the land the previous season and turning it under so that it will become thoroughly decomposed before the potatoes are planted. Soy beans, cowpeas, or velvet beans are chiefly used for this purpose.
- 9** An early crop fertilizer should contain from 5 to 7 per cent of nitrogen, from 6 to 8 per cent of phosphoric acid, and from 5 to 7 per cent of potash.¹ A late crop fertilizer should contain from 2 to 4.5 per cent of nitrogen, of which not over one-half should be derived from nitrate of soda or sulphate of ammonia. The same percentages of phosphoric acid and potash should be used as for early potatoes. It is not best to use sulphate of ammonia on acid soils. The sulphate of potash should be used in preference to the muriate of potash. Clover or alfalfa sods require less nitrogen in the fertilizer mixture used than pasture or stubble lands. Fertilizer should be applied at the rate of from 800 to 1,500 pounds per acre, depending on the character of the soil. The application may be made either before planting or distributed in the drill row at time of planting. In no case should it be allowed to come in contact with the seed.

¹ When the cost of potash is so high as to make it impractical to use a fertilizer containing as high a percentage of potash as suggested here, smaller proportions may be used. In fact, on some soils it may not be advisable during high prices of potash to use any potash at all in the fertilizer for potatoes. On most soils of the northeastern United States, however, it will even at almost prohibitive prices probably pay to use from 2 to 4 per cent of potash.

VARIETY TO PLANT.

View.

The early varieties most generally grown in the North are the Irish Cobbler and Extra Early Eureka, which is practically identical with the Cobbler. The Green Mountain, Rural New Yorker No. 2, Sir Walter Raleigh, and Carman No. 3 comprise the most common late varieties. In the West the Early Ohio, Early Michigan, and Early Acme are more generally grown among the early varieties, and the Carman No. 3, Sir Walter Raleigh, Rural New Yorker No. 2, Pearl, Peerless, and Burbank among the late. In the trucking sections of the South the Triumph (Bliss or Red Bliss Triumph), Rose 4, and Irish Cobbler are the varieties commonly grown for the early crop. For the fall crop, the Lookout Mountain, or McCormick, is most used.¹

11

POTATOES FOR SEED.

The question of securing good seed is of vital importance. One should aim to plant pure seed from productive plants, not overripe, uniform in size and shape, firm and sound, with first sprouts just showing at planting time. Seed of such quality, if furnished suitable cultural conditions, will seldom fail to produce a remunerative crop. A conservative estimate of the increase that might be expected from the use of high-grade seed is no less than 10 per cent.

12

PURE SEED.

The importance of securing pure seed of a given variety is best appreciated by the southern truck grower, who is largely dependent on northern-grown seed potatoes for his early crop. This northern-grown seed frequently contains from 5 to 10 per cent mixture of late varieties. These are slow in starting and so late in maturing as to be of no value when the crop is harvested for the early market. The money loss due to such a mixture is often from \$10 to \$15 per acre.

SEED FROM PRODUCTIVE PLANTS.

The results of experimental work thus far conducted verify the natural assumption that seed from vigorous and productive plants will give much better yields than seed from weak and unproductive plants.

IMMATURE SEED.

The superiority of immature over mature tubers for seed purposes is not yet fully recognized by the American potato grower. The European growers, on the other hand, have long realized that, other things being equal, larger crops can

¹ Discuss varieties only for section in which lecture is given.

View.

be produced from immature seed than from mature seed. The southern truck grower, in an unconscious way, uses immature seed to a very large extent when he plants northern-grown seed for his early crop. This seed, especially that obtained from northern Maine, is in a more or less immature condition when harvested.

13

UNIFORMITY OF TUBERS.

Under normal conditions of growth a large proportion of commercial varieties are very variable in size and shape of tuber. To some extent both size and shape are determined by the character of the soil, rate of planting, fertilization, and cultural care given the growing crop. Inheritance also plays a very important part. It has been demonstrated that most varieties contain within themselves distinct varietal strains which when isolated behave in a much more uniform manner with respect to size and shape than the composite strains of which the variety is constituted. All things being equal, the variety or varietal strain that produces a maximum number of fair-sized shapely tubers and a minimum number of ill-shaped and small tubers should prove the most valuable, because it involves less waste to both the grower and the consumer. It is particularly important that such strains be developed, because there is an increasing demand for fancy table stock to satisfy the requirements of a large and discriminating class of consumers who are insisting on greater uniformity in size and shape and are willing to pay a premium on such grades.

14

SIZE OF SEED TUBERS.

Comparative studies of the merchantable and unmerchantable tubers produced from strong and weak potato plants show that the ratio of the large to the small tubers is always greater from strong plants than from weak ones. It is easy from this to see that in the use of small tubers one would inevitably select a large part of his seed from unproductive and weak plants and a relatively small part from the productive and vigorous ones. The use of small seed potatoes is only permissible when they are known to have been produced by strong, healthy, and productive plants. It is never advisable to use small tubers from the general mass produced from unselected stock.

15

WHOLE OR CUT SEED.

Data on investigations which have been conducted along this line show that within reasonable limits the larger the seed piece planted the larger is the resultant crop produced. Points in favor and against the use of whole seed are: (1) It

assures an almost perfect stand; (2) it results in greater freedom from disease; (3) it is objectionable in that it often results in the use of small tubers from unselected stock. When whole seed is used, it should be germinated before planting. This will insure a moderate number of sprouts which, if planting is done in fertile soil, will favor a large yield of medium-sized potatoes. Planting whole tubers in a dormant condition favors the development of too many sprouts and the consequent large set of new tubers. This, accompanied with a poor preparation of the soil, scant plant food, and lack of moisture will generally result in a large part of the tubers not reaching a marketable size and so failing to produce a profitable crop.

It is, in general, good practice to cut seed into pieces containing from two to four eyes. All seed showing brownish or blackish spots or rings in the flesh should be rejected. It is better, as a rule, to cut and plant seed the same day. When the soil is hot and rather dry, however, it is advisable to cut the seed a day or two in advance of planting, provided it is spread out thinly in a shady place. Under these conditions the cut surface soon dries or heals over and further loss of moisture is prevented. Sprinkling fresh cut seed with land plaster answers the same purpose.

STORAGE OF SEED.

The main thing in storage of seed is to keep the room temperature sufficiently low to retard germination. The ideal seed tuber is one which has not wasted any of its stored-up energy by excessive loss through sprouting. It should be firm, with the first sprouts just showing. Such tubers can be depended upon, if suitable conditions prevail, to start quickly when planted and to make a vigorous growth. In the North a well-constructed cellar, pit, or cave serves reasonably well for storage. The truck grower of the South, as before stated, usually secures his seed from the North. This involves getting the seed potatoes late in the fall and holding them over or shipping in midwinter with the risk of the seed being chilled, frozen, or overheated. Possibly the greatest need of the large southern truck grower is that of providing suitable storage facilities for handling fall shipments of seed potatoes. The difference in first cost as between fall and midwinter purchases of seed will generally more than offset the cost of storage.

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TREATMENT FOR SCAB.

All seed should be treated for scab prior to planting. The formalin treatment is one of the most effective agencies now employed for scab disinfection. The seed tubers should be

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View.

immersed for two hours in a solution containing 1 pint of formalin to 30 gallons of water. On removal from the liquid they may be cut and planted at once, or they may be spread out to dry and stored for later use. The treated tubers should never be allowed to come in contact with old sacks and barrels in which diseased seed has been handled, as they are almost certain sources of reinfection.

PLANTING.

20 Potatoes ordinarily are planted in one of three ways: (1) By hand; (2) by opening a furrow with a one-horse plow or shovel and dropping the seed by hand into the furrows; and (3) by use of the two-horse planting machine. Planting potatoes by hand on a large scale is no longer practicable on account of the expense. The one-horse furrow method is used to a considerable extent in the truck crop regions of the South, although the use of the potato planter is fast gaining ground. In the potato-growing sections of the North and West the planter is now in general use. In some communities of small potato growers, several men often purchase a planter jointly, and thus avoid any large expense to the individual farmer.

21 There are two prevailing types of planter, in one of which the seed pieces are distributed by steel forks or pickers and in the other by pockets in a revolving disk. Both types are two-horse machines, the former being operated by one man and the latter requiring a second man to attend to the seed distribution, but insuring a more perfect stand. Either type will plant about five acres per day. The planter will at the same time distribute fertilizer.

22 Seed should be planted about 4 inches deep in rows from 32 to 36 inches apart and from 10 to 18 inches apart in the row. The closer planting (10 by 32 inches) is recommended on lands well supplied with plant food and moisture. For the other extreme of soil conditions planting should be 18 by 36 inches. When not planted with a machine the seed should be covered as quickly as possible after dropping.

CULTIVATION.

23 Cultivation should be begun a week or 10 days after planting by going over the ground with a weeder or a light harrow, the teeth of which have been slanted backward. Anything that will break the surface crust and keep down the weeds will serve the purpose.

As soon as the plants are up cultivation with a regular implement should be begun. The first cultivation should be

as deep as possible, with each subsequent cultivation shallower than the preceding one. Cultivation should be continued at frequent intervals as long as it is possible to get through the rows without too much injury to the plants. If showers have a tendency to make a crust upon the soil or compact it, the soil should be stirred as soon as it can be worked after each rain. In sections where the rainfall is abundant, ridging up seems to be desirable. Where the rainfall is light and the summer temperatures are high, little, if any, ridging is advisable.

Where any considerable acreage of potatoes are raised annually on a farm it is the part of economy to do the cultivating with a two-horse riding implement. By this means it is possible to work both sides of a row at the same time, and one man and two horses will accomplish as much as two men and two horses using the one-horse cultivator.

SPRAYING.

Spraying should be begun with arsenate of lead, Paris green, or other poisons as soon as the potato beetle appears. When the plants are 8 or 10 inches high a combination insecticide and fungicide should be used. This is made by adding the poison to the Bordeaux mixture. These applications should be made often enough to keep the foliage well covered. Flea beetle and fungus-disease injuries are very largely avoided if the foliage is kept well covered with Bordeaux mixture.

SPRAY PUMPS.

The simplest form of spray apparatus is the atomizer. This can be used only with very strong insecticidal mixtures and is at least not to be recommended for extensive spraying. The compressed-air knapsack sprayer is the next available form, and on small areas this makes a fairly satisfactory spray outfit. The barrel force pump comes next, followed by the various forms of gear-driven and gasoline-driven spray machines.

ARSENICAL AND FUNGICIDAL FORMULAS.

Poisons: (1) 1 pound powdered arsenate of lead in 25 gallons of water. (2) One-half pound Paris green, one pound lime,⁴ in 25 gallons water. Fungicide Bordeaux mixture: $2\frac{1}{2}$ pounds copper sulphate (blue vitriol), $2\frac{1}{2}$ pounds lime, 25 gallons water. Dissolve the copper sulphate crystals in a wooden or earthen vessel, slake lime in another vessel, dilute both with 5 to 10 gallons water, and pour together in a third vessel, after

⁴ Slake lime in small quantity of water before adding to the mixture.

View.

which make up to 25 gallons. The potato grower should consult Farmers' Bulletin 868, entitled "How to Increase the Potato Crop by Spraying."¹

HARVESTING THE CROP.

Early potatoes grown as market-garden or truck crops and intended for immediate consumption are as a rule harvested as soon as they have reached marketable size, regardless of the maturity of the crop. Where potatoes are intended for winter use, as a general thing it is desirable to harvest the crop as soon as the vines are dead. The crop ought always to be harvested before danger of severe freezing. The tubers, after digging, should be exposed to the light as little as possible, as light injures their table quality. The hills for seed should be selected and gathered before the regular harvest of the crop begins.

DIGGING.

While the harvesting of early Irish potatoes grown for home consumption is largely carried on by hand, improved implements such as potato diggers and potato sorters are used to great advantage where any considerable acreage is handled. The digger will usually turn out about 3 acres a day, and from 5 to 7 pickers are required to keep up with it. Some of the smaller truck farmers along the Atlantic coast still adhere to the simpler methods of digging by hand or using the ordinary one-horse turning plow. Laborers follow and throw four or six rows of potatoes together, in piles, after which they are sorted and put into barrels for shipment.

GRADING.

Potatoes should be graded in the field into merchantable stock and culls, the latter consisting of all rough, uneven, injured, or small tubers. If a fancy market is available or can be created, a further grading will oftentimes pay handsomely for the extra labor. By grading the tubers into different sizes and in groups having the same general shape—that is, all round, all oval, or all long—a much more attractive appearance is obtained and should command a much better price if put up in convenient-sized packages.

In many sections, particularly in the North, where the harvesting season is comparatively short, the acreage large, and the bulk of the crop goes into storage, no attempt is made to grade the crop in the field. The crop in such cases is graded as marketed.

¹ This publication may be obtained free from the Division of Publications, United States Department of Agriculture.

PACKING AND SHIPPING.

In regions where timber is plentiful and barrels and crates figure largely in the shipment of other truck crops, potatoes especially early crops, are chiefly shipped in barrels covered with burlap. In other localities burlap sacks are chiefly employed, as is the case in most regions growing late potatoes.

View.
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Crates are preferable to any other receptacle for handling potatoes from field to storage.

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Whether it is advisable to store or sell late potatoes at digging time depends very largely on the prevailing price at that time. If prices are reasonably good it is generally advisable to sell at once. The extra handling involved in storing and the shrinkage in weight through injuries, diseases, and moisture loss will very often offset the increase in price that might be secured.

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STORING.

The factors supplied by storage must be of such a character as to protect the tubers from extremes of cold and heat and from the light. Usually these are the only matters seriously considered in storage construction. However, the questions of humidity, aeration, and the size of the storage pile or bin will probably eventually be found to be rather important factors.

When potatoes are put in storage the temperature of the storage house, if possible to regulate it, should be reduced as quickly as possible to about 36° to 38° F. and held at as nearly this temperature as possible during the period of storing. To preserve potatoes for table quality, light must be excluded. Exposure to modified light, when potatoes are kept cool and well aired, is not injurious to seed potatoes. There should be sufficient ventilation to afford free circulation of air throughout the piles of potatoes. The storage pile should, accordingly, not be too large. Ventilated partition walls should be provided in the storage house when potatoes are piled to any considerable depth.

34

Potatoes may be successfully stored in pits if provided with good drainage and given sufficient covering to insulate them against external heat and cold. The depth of excavation should be about 6 inches. The shape of the pit should be long and narrow rather than square. It is not advisable to store too large a quantity in one pit. A light layer of straw should be placed on the floor of the pit to protect the tubers from direct contact with the soil. The potatoes should be piled in a ridge of inverted V shape, as this exposes a large area of the pile to the air and sheds the rain best when covered.

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View.

Provision for ventilation should be made before covering. The potatoes should be covered with alternate layers of straw and soil, adding the layers of each as the weather becomes colder and colder. Ventilation may be provided by means of a wooden flue, the lower end of which should extend almost to the bottom of the pit, while the upper end projects well above the covering. The flue should have a wooden cap to prevent the entrance of rain or snow. The flue, however, should be entirely closed during extremely cold weather.

37 In the Central West and western parts of the United States the dugout pit or potato cellar is probably more widely used than any other type. The construction of this type of storage house varies greatly according to the rainfall of the section, the temperature, and the quantity of tubers to be stored.
38 For this type of storage a sidehill, knoll, or ridge of land is usually selected as the site, and this rise of land furnishes a side of the cellar after the excavation has been made. In the arid and semiarid regions of the West, where the rainfall is light, a water-tight roof is unnecessary and the cellars are therefore covered with straw and soil, poles being used for support. In the Middle Western and Northeastern States, where the waterproof roof is necessary, rough lumber and shingles are commonly used. In all cellars of the dugout type ventilation is provided through the roof. In some cases provision is made for placing the potatoes in the cellar through an opening in the roof, in other instances a wagon entrance is provided in one end of the dugout.
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42 In certain of the old and well-to-do potato sections, like the Aroostook district in Maine, still more expensive storage buildings of regular frame and concrete materials are frequently built.¹

¹ For further information concerning storage see Farmers' Bulletin 347, Potato Storage and Storage Houses.

APPENDIX.

LANTERN SLIDES.

No. of
view.

1. The Irish potato, one of the principal American foods.
2. Map showing location of potato crop areas in the United States.
3. Boats landing early potatoes at Cape Charles, Va.
4. A potato field of 140 acres, Colorado.
5. Chart showing rotation with potatoes.
6. A good soil for potatoes.
7. Plowing under a good clover sod for potatoes.
8. A good application of barnyard manure for potatoes.
9. Interior view showing a pile of home-mixed 4 : 8 : 10 fertilizer for potatoes.
10. Effect on yield of potatoes of applying commercial fertilizer at the rate of one-half ton per acre.
11. Irish Cobbler, a favorite early variety.
The view shows good and poor selection for seed.
12. A poor stand of potatoes, the result of poor seed.
13. Various types of shape in the Irish potato.
14. A good hill selection of Green Mountain potatoes.
15. Comparison between strong and weak potato plants.
16. Five varieties of potatoes showing variation in size and distribution of sprouts in dark and light.
17. Interior view of the potato storage cellar of the United States Department of Agriculture at Jerome, Idaho, showing the ventilated division walls and floor and the slat-bottomed flats for storing seed potatoes.
18. Potato scab.
19. Formalin treatment of potatoes for scab.
20. Boys planting potatoes by hand.
21. Potato planter of the picker type.
22. Revolving disk type of planter in operation.
23. Weeding a potato field before the plants come up.
24. A field of potatoes too far developed to continue cultivation.
25. Farm boys bugging potatoes.
26. A barrel force-spraying outfit for potatoes.
27. Potato digging at Caribou, Me.
28. One of the simplest types of potato digger.
29. Sorting potatoes in the field over a portable screen.
30. A barrel of well-graded tubers.
31. A barrel of potatoes ready for burlap covering.
32. Method of covering barrel with burlap.
This method is used in the Norfolk (Va.) district.
33. Field scene near Norfolk, Va., showing potato crop barreled ready for market.
34. Section of one side of a potato storage cellar, showing the method of constructing the aerated bin, Jerome, Idaho.
35. Pit used for storing potatoes in the field near Greenville, Mich.

No. of
view.

36. Cross section of a potato pit insulated with layers of straw and earth, showing the perforated ventilator in position and the potatoes piled in inverted V-shaped fashion.
37. A common type of potato storage house in the Central West.
38. A cheap type of potato storage cellar with banks of earth serving as side and end walls, used in subhumid or irrigated sections, Greeley, Colo.
39. A potato storage cellar, showing side and roof framing covered with woven wire and with ventilator in place ready for applying the layers of straw and earth, Aberdeen, Idaho.
40. The potato storage house with the covering of straw and earth in place.
Note the bulkhead entrance and the hinged ventilated caps.
41. A potato storage cellar with water-tight roof, showing openings in the roof through which the tubers are sprouted into the cellar, Sabin, Minn.
42. A potato storage house in Maine, showing a central driveway entrance into the lower or basement portion.
The end entrance is more commonly used, especially in the larger structures, than is the side entrance at one end of the building.

